

## **Firefighter Engineer - 4411**

### **Primary Reason Why Classification Exists**

To perform firefighting work and be the designated operator of fire apparatus and other equipment during emergency situations and combating fires

### **Distinguishing Features of the Class**

An employee in this class is responsible for safely driving and operating fire apparatus during emergency situations. Emphasis of the work is on equipment operation, determining water or retardant pressure rates for fire hoses, size of fire hoses required, and use of ladders, hand tools, and cutting tools. This employee is a Firefighter and retains the requirement to serve in the absence of a supervisor since the position may work up or down the command structure as the need arises. The employee also responds to emergency medical calls, provides emergency medical services, participates in training classes, and cleans fire equipment and station house. Work standards and procedures are well established and understood; however, significant independence of action and judgment are required during a fire or emergency medical call. Work is performed under the immediate supervision of a higher ranked fire officer and is reviewed through observation, reports, and discussion concerning and effectiveness of performance.

### **Illustrative Examples of Work**

- Drives fire apparatus to and from fire scenes or emergency scene; connects pump to water source and hoses to the pump; calculates friction loss pumping water and maintains correct pressures for nozzles based on hose sizes and fire conditions; monitors radio transmission and relays messages as needed
- May serve as the on-scene fire officer until arrival of the officer-in-charge; takes charge at the scene of fire and assesses situation, determines method of suppression, makes first attack on the fire, and determines placement of the engine
- Participates in post-fire operations of cleaning and salvage; covers furniture and fixtures, sweeps and mops water to minimize water damage, and participates in retrieving, cleaning, and replacing all equipment
- Conducts fire prevention education demonstrating fire extinguishers, smoke detectors, and help develop escape plans; attends lectures, studies manuals, participates in fire drills and learns modern fire suppression techniques to maintain and develop skills
- Participates in training to assure proficiency in all firefighting techniques; trains for knowledge of all equipment and apparatus as well as their operations; conducts residential and business fire prevention inspections; inspects and prepares scale drawings and pre-plan firefighting strategies; maintains knowledge of sprinkled buildings and hydrant locations
- Participates in routine maintenance and servicing of equipment including checking and filling self-contained breathing apparatus, washing and waxing trucks, checking batteries, checking fuel and oil levels, cleaning and drying hose, and inspecting hose and hose connections for damage and wear; sweeps, mops, paints, and washing windows of fire station
- Checks and flushes city fire hydrants for flow and pressure
- Conducts tours of the fire station and other public relations work with schools
- Performs related work as assigned



### **Knowledge, Skills, and Abilities**

- Knowledge of city geography, street locations, and hydrant locations
- Knowledge of current firefighting practices and procedures
- Knowledge of the operation of and maintenance requirements of fire equipment, pumps, hose pressures and other aspects of operating one or more variations of fire trucks
- Knowledge of firefighting hazards and related safety precautions
- Ability to navigate to a fire scene with the shortest and most expedient route possible using knowledge of streets and GPS equipment
- Ability to operate and maintain various motorized fire equipment; ability to determine hose size, pump pressures, and water flow rates required to use in specific fire fighting situations
- Ability to establish effective working relationships with members of the squad, company, station house, and the general public
- Ability to present fire prevention/safety training to school age children through senior citizens
- Ability to represent the city fire department in a positive manner
- Skill in operating apparatus such as trucks, pumps, levers, hoses, radios, and other apparatus
- Skill in using firefighting tools and equipment such as a pry bar, axe, hose, nozzles, air packs, fans, shovels, rakes, sledge hammers, jaws-of-life, defibrillator, engine trucks and others

### **Physical Requirements**

Work in this position is heavy work requiring exertion of in excess of 100 pounds of force occasionally, and/or in excess of 50 pounds of force frequently, and/or in excess of 20 pounds of force constantly to move objects. Employee must have the visual acuity to be the operator of a truck and other equipment.

### **Working conditions**

Employee is subject to both inside and outside environmental conditions, including extreme heat and extreme cold. Employee is subject to noise, vibration, and hazards and physical conditions such as proximity to moving mechanical parts, electrical current, working in high places, exposure to high heat, chemicals, subject to oils and greases, and may be exposed to blood and blood borne pathogens when providing emergency medical services. Employee is subject to atmospheric conditions that affect the respiratory system of the skin and is required to wear a respirator. Employee is frequently in close quarters and areas which could cause claustrophobia.

### **Education and Experience**

Completion of high school or GED equivalency and 2 - 3 years experience as a firefighter. All candidates must meet the minimum requirements established by the North Carolina Department of Insurance.

### **Special Requirements**

- NC Non-Commercial Driver's license (Class B) with an acceptable driving record
- NC Firefighter certification, EMT-B, and Emergency Rescue Technician
- NC certified as an Emergency Vehicle Driver



**FLSA Status:** Nonexempt (Section 7(k) of the FLSA provides that employees engaged in fire protection or law enforcement may be paid overtime on a “work period” basis. A work period may be from 7 consecutive days to 28 consecutive days in length. For work periods of at least 7 but less than 28 days, overtime pay is required when the number of hours worked exceeds the number of hours that bears the same relationship to 212 (fire) or 171 (police) as the number of days in the work period bears to 28. For example, fire protection personnel are due overtime under such a plan after 106 hours worked during a 14-day work period, while law enforcement personnel must receive overtime after 86 hours worked during a 14-day work period).

**Disclaimer**

This classification specification has been designed to indicate the general nature and level of work performed by employees within this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities, and qualifications required of employees to perform the job. The Physical Requirements and Working Conditions section of this classification may vary from position to position and a more thorough description of these elements can be found in the employee’s Position Analysis Questionnaire (PADQ). The employer reserves the right to assign or otherwise modify the duties assigned to this classification.

March 2015